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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,818	06/06/2007	Stefan Dickopf	85994	2770

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EXAMINER	
KILPATRICK, BRYAN T	
ART UNIT	PAPER NUMBER
1797	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/555,818	DICKOPF ET AL.	
	Examiner	Art Unit	
	BRYAN T. KILPATRICK	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *6 and 15* is/are withdrawn from consideration.

5)☒ Claim(s) *23 and 24* is/are allowed.

6)☒ Claim(s) *1-5,7-14 and 16-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendments and arguments/remarks filed on 28 January 2010 have been fully considered and entered.

2. Instant claims 23-24 are newly entered by Applicants' amendment.

3. Instant claims 1, 10, and 12 have been amended by Applicants' amendment.

4. Instant claims 1-5, 7-14, and 16-24 are pending currently.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-14 and 16-22 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication 2001/0026943 A1 (Dickopf et al.).

In regards to instant claims 13 and dependent claims 14, 16, and 19-22: Dickopf et al. recites a method of producing a surface plasmon resonance, SPR, sensor system in claims 27-37 and 61. The SPR system of Dickopf et al. (Fig. 2a-c) has a prism where

light enters in the left-hand side window of the prism and then exit from the opposite side after reflecting off a surface. Dickopf et al. discloses a chamber that holds index fluid is located on top of a prism (30 of Fig. 2c). Dickopf et al. discloses that all the surface areas of the system do not have a specific shape and are adjustable (paragraph [0046]-[0047]). Dickopf et al. discloses the use of a two dimensional positioning table for positioning sensor components (paragraph [0065] and claim 42). Dickopf et al. discloses the use of capillary action for filling index fluid (paragraph [0064]).

In regards to instant claim 17, claim 18 of Dickopf et al. recites the use of a plate in a SPR sensor array.

In regards to 18, Dickopf et al. discloses the use of a number of sensor fields in paragraph [0013].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2001/0026943 A1 (Dickopf et al.), and further in view of U.S. Patent 6,870,627 (Elkind et al.).

In regards to instant claim 1, Dickopf et al. discloses a SPR sensor system in the Title. The SPR system of Dickopf et al. (Fig. 2a-c) has a prism where light enters in the left-hand side window of the prism and then exit from the opposite side after reflecting off a surface. In addition to the prism, a chamber that holds index fluid and is integrated on the top of the prism is disclosed (30 of Fig. 2c). Dickopf et al. discloses that the surface areas do not have a specific shape and are adjustable (paragraph [0046]-[0047]). Dickopf et al. discloses the use of a two dimensional positioning table for positioning sensor components (paragraph [0065] and claim 42).

Dickopf et al. discloses the use of capillary action for filling index fluid (paragraph [0064]), but does not disclose a feeding and/or discharge conduit. Elkind et al. discloses an apparatus and method for SPR analysis in the Abstract. The apparatus of Elkind et al. (Fig. 1) has an inflow conduit (col. 7, line 44) and an outflow conduit (col. 8, line 21) for moving solution through a flow cell. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the inflow and outflow conduits of Elkind et al. with the SPR sensor system of Dickopf et al. for the purpose of being able to introduce and capture multiple solutions during and after analysis (col. 8, lines 38-45 of Elkind et al.).

More specific to instant claim 2, Dickopf et al. discloses the use of capillary action for filling index fluid (paragraph [0064]), and Elkind et al. discloses an apparatus (Fig. 1) that has an inflow conduit (col. 7, line 44) and an outflow conduit (col. 8, line 21) for moving solution through a flow cell.

More specific to instant claims 3-5, Dickopf et al. discloses a chamber that is integrated on the top of a prism and holds an index fluid (30 of Fig. 2c). Dickopf et al. discloses that the surface areas do not have a specific shape and are adjustable (paragraph [0046]-[0047]).

More specific to instant claims 7-9, Dickopf et al. discloses the use of a number of sensor fields in paragraph [0013] and having sensor fields on a plate in paragraph [0062]. Claim 18 of Dickopf et al. recites the use of a plate in a SPR sensor array.

More specific to instant claim 10, Dickopf et al. recites an irradiation means for beaming radiation into a substrate in claim 38.

More specific to instant claims 11-12, Dickopf et al. discloses a chamber that holds index fluid that is integrated on top of the prism is disclosed (30 of Fig. 2c) and discloses the use of capillary action for filling index fluid (paragraph [0064]).

Allowable Subject Matter

Claims 23-24 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or fairly suggest instant claims 23-24 which recite an optical device having a chamber formed by two optical elements and a circumferential sidewall, and further having openings for feeding and discharging conduits of index-adapting liquids and/or gases that are configured as channels in one of the two optical elements.

Response to Arguments

Applicants' arguments/remarks filed on 28 January 2010 with respect to claims 1-5, 7-14, 16-22, and newly added claims 23-24 have been considered but are moot in view of the new ground(s) of rejection.

Applicants' state on p. 8-9 of the remarks filed that Dickopf et al. does not meet the chamber limitation of instant claim 13.

The SPR system of Dickopf et al. (Fig. 2a-c) has a prism where light enters in at a side window of the prism and then exit from the opposite side after reflecting off a surface where a sample for analysis is located. Dickopf et al. discloses a chamber that holds index fluid is located on top of a prism (30 of Fig. 2c), which is referred to as a film in claims 20-21. Furthermore, Dickopf et al. discloses that all the surface areas of the system do not have a specific shape and are adjustable (paragraph [0046]-[0047]). Therefore, it is apparent that Dickopf et al. provides the components for the chamber of instant claim 13.

Applicants' state on p. 9-10 of the remarks that the combination of Dickopf et al. with Elkind et al. does not cure deficiencies of Dickopf et al. - feeding and/or discharge conduits.

Dickopf et al. discloses the use of capillary action for filling index fluid (paragraph [0064]), however the prior art does not disclose a feeding and/or discharge conduit. Elkind et al. discloses an apparatus and method for SPR analysis in the Abstract. The apparatus of Elkind et al. (Fig. 1) has an inflow conduit (col. 7, line 44) and an outflow conduit (col. 8, line 21) for moving solution through a flow cell used in SPR analysis. Since Elkind et al. discloses components employed for moving a solution through a flow cell used in SPR analysis, it would have been obvious to one of ordinary skill in the art

to apply the similar components for moving other fluids such as the index-adapting liquid of the instant application through a cell used in SPR analysis.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN T. KILPATRICK whose telephone number is (571)270-5553. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jill Warden/
Supervisory Patent Examiner, Art Unit 1797

/B. T. K./
Examiner, Art Unit 1797